

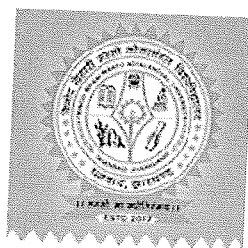
**SYLLABUS FOR FOUR YEAR UNDER GRADUATE
PROGRAMME (FYUGP)**

HOME SCIENCE

Semester – I & II

**(UNDER CHOICE BASED CREDIT SYSTEM)
As per provision of NEP-2024**

ACADEMIC SESSION: w.e.f. 2025-2029



**For
All Constituent/Affiliated Colleges Under Binod Bihari
Mahto Koylanchal University,
Dhanbad**



BINOD BIHARI MAHTO KOYALANCHAL UNIVERSITY
Dhanbad, Jharkhand - 826004

E-mail:- registrarbbmku@gmail.com

Notification

In exercise of the powers vested in him under the Jharkhand State Universities Act 2000 as amended up-to-date, the Vice-Chancellor is pleased to reconstitute a Board of Studies (BOS) for the Department of Home Science at Undergraduate level, comprising of following members for a period of one year from the date of notification:

- | | |
|--|-------------------|
| 1. Dr. Seema Kumari Head, University Department of Home Science, BBMKU | - Chairperson |
| 2. Dr. Manju Kumari Associate Professor, University Department of Home Science, Ranchi University, Ranchi | - External Member |
| 3. Dr. Reshma Xalxo Associate Professor, University Department of Home Science, Ranchi University, Ranchi | - External Member |
| 4. Dr. Chanchala Verma University Department of Home Science, BBMKU. | - Member |
| 5. Dr. Shanta Badaik Dept. of Home Science , SSLNTM College, Dhanbad | - Member |
| 6. Mrs. Asha Kumari Dept. of Home Science , Bokaro Mahila College, Bokaro | - Member |
| 7. Dr. Anju Verma Dept. of Home Science , BSSM College, Dhanbad | - Member |
| 8. Dr. Susmita Kumari Dept. of Home Science , S.S. College, Chas | - Member |

By order of the Vice-Chancellor
Sd/-

Registrar

Date 21/02/2025

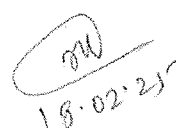
Memo No. BBMKU/R/...314.../2025

Copy to: -

1. Persons concerned.
2. Dean, Faculty of Science, BBMKU.
3. Establishment Section, BBMKU, Dhanbad.
4. P.A. to VC/PVC/R for information to VC/PVC/R.
5. Guard File.


Registrar

BBMKU, Dhanbad.


18.02.25

Dr. Manju Kumari

Ph.D., D.Litt.

Associate Professor
University Dept. of Home Science
Ranchi University, Ranchi-834008



Residence :

KARNIK COTTAGE
A/5, Gauri Enclave, Maitri Marg,
Bariatu, Ranchi-9 (Jharkhand)
Phone : 0651-2541319
Cell. : 9431585498

Ref. :

Date : 13/05/2025

This is to certify that the purposed syllabus of four year under Graduate programme (FYUGP) 2024 in Home science, B.B.M.K. University, Dhanbad Major course, Associated core course, Elective Course, MJC course, RC course, AMS course and JOC course are approved.

External member

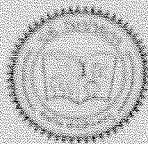
Manju Kumari

13/05/2025

Dr. Manju Kumari

Associate Professor
H.G. Dept. of Home Science
Ranchi University, Ranchi

Dr. (Mrs.) Reshma Xalvo
M.A., Ph.D.
Associate Professor
PG Deptt. of Home Science
Ranchi University
Ranchi-834008, Jharkhand



Residence:
"Ashurwad"
C/o Mr. Shital Ghosh
209/C, Behind Rajul Automobile
Karamtoli, Baria Road, Ranchi-8
(Jharkhand) Ph - 09431103818

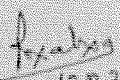
Ref. No.

Date 14/05/2025

This is the approved syllabus for Four Year Under Graduate Programme (FYUGP) 2024 in Home Science of BSMK University, Dhanbad

1. Major Course.
2. Associate Core Course.
3. Elective Course.
4. MDC Course.
5. RC Course.
6. AMI Course.
7. JDC Course.

External Member


14/05/2025
Dr. Reshma Xalvo
Associate Professor
PG Deptt. of Home Science
R.U. Ranchi

Members of Board of Studies of Four Years Under-Graduate Programme (FYUGP) syllabus as per Guidelines of the (NEP-2024) Binod Bihari Mahto Koyalanchal University, Dhanbad.

1. Chairman : Dr. Seema Kumari
2. External expert member : Dr. Manju Kumari
3. External expert member : Dr. Reshma Xalxo
4. Members : Dr. Chanchala Verma

Seema Kumari
16/07/2025

(Dr. Seema Kumari)
Head of the Deptt. of Home Science
BBMK University
University Department of Home Science
Dhanbad-826001 (Jharkhand)
BBMKU, Dhanbad

Course Structure for Four Year Undergraduate Programme in Home Science

Semester wise Course Code, Marks, Credit Points:

Course Structure for Undergraduate Certificate Programme (Semester I & II)

| Semester | Course Code | Name of Paper | Credit | Full Marks | | Internal Theory (Mid-Sem) | End Sem Theory (U & E) | End Sem Practical | Pass Marks | | |
|----------|-------------|--|---------|------------|---------|---------------------------|------------------------|-------------------|------------|----|----|
| | | | | | | | | | | | |
| I | AEC-I | Ability Enhancement Course-I (MIL-1 Modern Indian Language Hindi/English) | 2 | 50 | | - | 50 | - | - | 20 | - |
| | VAC-I | Value added course-I | 2 | 50 | | - | 50 | - | - | 20 | - |
| | IKS-I | Indian Knowledge System/Social Awareness Activities-I | 2 | 50 | | - | 50 | - | - | 20 | - |
| | SEC-I | Skill Enhancement Course-I | 3 | 75 | | - | 75 | - | - | 30 | - |
| | MDC-I | Multi Disciplinary Course-I | 3 | 75 | | - | 75 | - | - | 30 | - |
| | AC-I | Associated Core Courses (Disciplinary/Interdisciplinary/Vocational) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-I | Major paper-I (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| II | AEC-2 | Language and Communication Skills (MIL-1 Modern Indian Language Hindi/English) | 2 | 50 | | - | 50 | - | - | 20 | - |
| | VAC-2 | Value Added Course -2 | 2 | 50 | | - | 50 | - | - | 20 | - |
| | IKS-2 | Indian Knowledge System/Social Awareness Activities-2 | 2 | 50 | | - | 50 | - | - | 20 | - |
| | SEC-2 | Skill Enhancement Course-2 | 3 | 75 | | - | 75 | - | - | 30 | - |
| | MDC-2 | Multi-disciplinary Course-2 | 3 | 75 | | - | 75 | - | - | 30 | - |

| | | | | | | | | | | | |
|---|-------------|---|---------|---------|---------|----|----|----|---|----|----|
| | AC-2 | Associated Core Course-2 (Disciplinary/Interdisciplinary/Vocational) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-2 Theory | Major paper-2 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| Course Structure for Undergraduate Diploma Programme (Semester III & IV) | | | | | | | | | | | |
| III | AEC-3 | Language and Communication Skills (MIL-2; Modern Indian Language including TRL) | 2 | 50 | | - | 50 | - | - | 20 | - |
| | SEC-3 | Skill Enhancement Course-3 | 3 | 75 | | - | 75 | - | - | 30 | - |
| | MDC-3 | Multi-disciplinary Course-3 | 3 | 75 | | - | 75 | - | - | 30 | - |
| | ELC-I | Elective Courses from Discipline/Interdisciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-3 Theory | Major paper-3 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-4 Theory | Major paper-4 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| IV | AEC-4 | Language and Communication Skills (MIL-2 Including TRL) | 2 | 50 | | - | 50 | - | - | 20 | - |
| | VAC-3 | Value Added Course-3 | 2 | 50 | | - | 50 | - | - | 20 | - |
| | ELC-2 | Elective Courses from Discipline/Interdisciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-5 | Major Paper-5 (Disciplinary/Interdisciplinary Major having IKS) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-6 | Major Paper-6 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |

| | | | | | | | | | | | |
|---|-------|---|------------|----|----|----|----|----|---|----|----|
| | MJ-7 | Major Paper-7 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| Bachelor's Degree Programme (Semester V & VI) | | | | | | | | | | | |
| V | ELC-3 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-8 | Major Paper-8 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-9 | Major Paper-9 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-10 | Major Paper-10 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-11 | Major Paper-11 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| VI | ELC-4 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-12 | Major Paper-12 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-13 | Major Paper-13 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-14 | Major Paper-14 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |
| | MJ-15 | Major Paper-15 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | 75 | 25 | | | | | | |

| Total Credits including one Internship (IAP) of 4 credits = 120 | | | | | | | | | | | |
|---|---|--|---------|---------|---------|----|-----|----|----|----|----|
| Course Structure for Bachelor's Degree with Hon's with Research Programme (Semester VII & VIII) | | | | | | | | | | | |
| VII-A | ELC-5 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-16 | Major Paper-16 (Research Methodology) | 4 | 100 | | 25 | 75 | - | - | 40 | - |
| | MJ-17 | Major Paper-17 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | | | | | | | | | | | |
| | MJ-18 | Major Paper-18 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | | | | | | | | | | | |
| RC-I | Research Proposal – Planning & Techniques | 4 | 100 | | 25 | 75 | - | - | 40 | - | |
| VIII-A | ELC-6 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-19 | Major Paper-19 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | | | | | | | | | | | |
| | MJ-20 | Major Paper-20 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | | | | | | | | | | | |
| | RC-2 | Research Internship/Filed Work/Project/Dissertation/Thesis | 8 | 200 | | - | 200 | - | - | - | - |

Or (Honours)

| | | | | | | | | | | | |
|--------|-------|--|------------|---------|---------|----|----|----|---|----|----|
| VII-B | ELC-5 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-16 | Major Paper-16 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-17 | Major Paper-17 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-18 | Major Paper-18 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | AMJ-I | Advance Major Paper (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| VIII-B | ELC-6 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-19 | Major Paper-19 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-20 | Major Paper-20 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | AMJ-2 | Advance Major Paper (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | AMJ-3 | Advance Major Paper (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |

Or (P.G. Diploma)

| | | | | | | | | | | | |
|--------|-------|---|------------|---------|---------|----|----|----|---|----|----|
| VII-C | ELC-5 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-16 | Major Paper-16 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-17 | Major Paper-17 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-18 | Major Paper-18 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | JOC-I | Skill Based Job Oriented Paper (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| VIII-C | ELC-6 | Elective Courses from Discipline/Inter Disciplinary/Vocational | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-19 | Major Paper-19 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | MJ-20 | Major Paper-20 (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | JOC-2 | Skill Based Job Oriented Paper (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T 75 | P 25 | 15 | 60 | 25 | - | 30 | 10 |
| | JOC-3 | Skill Based Job Oriented Paper (Disciplinary/Interdisciplinary Major) | 4 (3+1) | T | P | 15 | 60 | 25 | - | 30 | 10 |
| | | | | | | | | | | | |

Total credits including one internship of 4 credits = 160 (credits)

Abbreviations:

- AEC – Ability Enhancement Courses
- SEC – Skill Enhancement Courses
- IAP – Internship/Apprenticeship/Project
- IKS – Indian Knowledge System
- MDC – Multi Disciplinary Courses
- ELC – Elective Courses
- MJ – Major Disciplinary/Interdisciplinary Courses
- AC- Associated core courses from discipline/Interdisciplinary/Vocational
- MN – Minor Disciplinary/Interdisciplinary/Vocational Courses
- AMJ – Advance Major Disciplinary/Interdisciplinary Courses
- RC – Research Courses
- JOC – Skill based job oriented courses

UNIVERSITY: Binod Bihari Mahto Koylanchal University, Dhanbad

Semester wise courses in Home Science

Four year under graduate programme (2025 onwards)

Major/Advanced Major/RC Paper

Credits: 4 (Theory:3, Practical: 1)

| Courses | | | Examination Structure | | | |
|--|-------|--|-----------------------|-----------------------|-----------------------|--------------------------|
| Sem | Code | Paper Title | Credit | Mid Sem Theory (F.M.) | End Sem Theory (F.M.) | End Sem Prac/Viva (F.M.) |
| I | MJ-1 | Fundamentals of food and nutrition | 3+1 | 15 | 60 | 25 |
| II | MJ-2 | Introduction to human development | 3+1 | 15 | 60 | 25 |
| III | MJ-3 | Fundamental of family resource management | 3+1 | 15 | 60 | 25 |
| | MJ-4 | Introduction to clothing and textile | 3+1 | 15 | 60 | 25 |
| IV | MJ-5 | Traditional Textiles and Embroideries of India (IKS) | 3+1 | 15 | 60 | 25 |
| | MJ-6 | Introduction to extension education | 3+1 | 15 | 60 | 25 |
| | MJ-7 | Introduction to Family meal management | 3+1 | 15 | 60 | 25 |
| V | MJ-8 | Applied food and nutrition | 3+1 | 15 | 60 | 25 |
| | MJ-9 | Family relationship | 3+1 | 15 | 60 | 25 |
| | MJ-10 | Housing and Interior Decoration | 3+1 | 15 | 60 | 25 |
| | MJ-11 | Adolescence: Different Aspects | 3+1 | 15 | 60 | 25 |
| VI | MJ-12 | Early childhood care and education | 3+1 | 15 | 60 | 25 |
| | MJ-13 | Food preservation and processing | 3+1 | 15 | 60 | 25 |
| | MJ-14 | Fabric Care & Management | 3+1 | 15 | 60 | 25 |
| | MJ-15 | Dyeing printing and finishing of textile | 3+1 | 15 | 60 | 25 |
| Fourth Year of FYUGP of Bachelor's Degree (Honours with Research) | | | | | | |
| VII A | MJ-16 | Research Methodology | 4 | 25 | 75 | - |
| | MJ-17 | Communication process in development | 3+1 | 15 | 60 | 25 |
| | MJ-18 | Nutritional management | 3+1 | 15 | 60 | 25 |
| | RC-1 | Research Proposal – Planning and Techniques | 4 | 25 | 75 | - |
| VIII A | MJ-19 | Resource Management : Concept and context | 3+1 | 15 | 60 | 25 |
| | MJ-20 | Family Finance and consumer behaviour | 3+1 | 15 | 60 | 25 |
| | RC-2 | Research Internship/Field Work/ Project /Dissertation/Thesis | 8 | | | |
| Total Credits excluding one internship of 4 credits = 160 credits | | | | | | |

OR

| | | | | | | |
|---------------|-------|---|-----|----|----|----|
| VII B | MJ-16 | Community Nutrition | 3+1 | 15 | 60 | 25 |
| | MJ-17 | Communication process in development | 3+1 | 15 | 60 | 25 |
| | MJ-18 | Nutritional management | 3+1 | 15 | 60 | 25 |
| | AMJ-1 | Advance Clothing and Textile | 3+1 | 15 | 60 | 25 |
| VIII B | MJ-19 | Resource Management : Concept and context | 3+1 | 15 | 60 | 25 |
| | MJ-20 | Family Finance and consumer behaviour | 3+1 | 15 | 60 | 25 |
| | AMJ-2 | Advance Human Physiology | 3+1 | 15 | 60 | 25 |
| | AMJ-3 | Therapeutic Nutrition | 3+1 | 15 | 60 | 25 |

OR

| | | | | | | |
|---------------|-------|---|-----|----|----|----|
| VII C | MJ-16 | Community Nutrition | 3+1 | 15 | 60 | 25 |
| | MJ-17 | Communication process in development | 3+1 | 15 | 60 | 25 |
| | MJ-18 | Nutritional management | 3+1 | 15 | 60 | 25 |
| | JOC-I | Public Health & Therapeutic Nutrition | 3+1 | 15 | 60 | 25 |
| VIII C | MJ-19 | Resource Management : Concept and context | 3+1 | 15 | 60 | 25 |
| | MJ-20 | Family Finance and consumer behaviour | 3+1 | 15 | 60 | 25 |
| | JOC-2 | Techniques of Bakery | 3+1 | 15 | 60 | 25 |
| | JOC-3 | Child Psychology and Counseling | 3+1 | 15 | 60 | 25 |

Year wise structure of U.G. Programme in Home Science

UNIVERSITY: Binod Bihari Mahto Koylanchal University, Dhanbad

Subject: Home Science

Associate core courses (Minor Paper)

Credits: 4 (Theory:3, Practical: 1)

| Courses | | | Examination Structure | | | |
|---------|------|-------------------------------------|-----------------------|-----------------------|-----------------------|--------------------------|
| Sem | Code | Paper Title | Credit | Mid Sem Theory (F.M.) | End Sem Theory (F.M.) | End Sem Prac/Viva (F.M.) |
| I/II | AC-1 | Introduction to textiles & clothing | 3+1 | 15 | 60 | 25 |

MDC (Multi Disciplinary Courses)

Credits : 3

| Courses | | | Examination Structure | | | |
|----------|-------|------------------------------|-----------------------|-----------------------|-----------------------|--------------------------|
| Sem | Code | Paper Title | Credit | Mid Sem Theory (F.M.) | End Sem Theory (F.M.) | End Sem Prac/Viva (F.M.) |
| I/II/III | MDC-1 | Introduction to Home Science | 3 | - | 75 | - |

Year wise structure of U.G. Programme in Home Science

- **Learning Outcome Based Approach to Curriculum Planning**

The degree is awarded on the basis of demonstrated achievement of outcomes of knowledge, skill and community interventions and academic standards expected from Home Science. Learning outcomes specify what graduates completing a particular programme of study are expected to know, understand and be able to do at the end of their programme of study.

The main objectives of the U.G. Home Science Programme are :-

- Enable students with knowledge, skills, attitudes and values to do community work in all areas of Home Science.
- Ensure global competitiveness and excellence in theory and practice
- Prepare the students for higher education.
- Train the students to take science from lab to community to improve quality of life of people.

Some of the characteristics attributes of U.G. Home Science include:-

- **Disciplinary Knowledge:** Students are able to demonstrate comprehensive knowledge and understanding of major concepts of the five Home Science disciplines (Food & Nutrition, Human Development & Childhood Studies, Fabric & Apparel Science, Development Communication & Extension, Resource Management & Design Application) with support of different allied subjects of Life Science, Physical Science and the Social Science.
- **Communication Skills:** Students are competent in public speaking, writing and interpersonal skills. Students are exposed to technical and soft skills. Communication is a core area in the discipline of Home Science.
- **Critical thinking:** Students develop critical sensitivity towards both community issues and process. They learn to do lateral thinking developing out of the box solution and effective problem solving skills to address community issues.
- **Cooperative/team work:** Students have basic management skills for independently organizing events, resource mobilization and leading community based projects and initiatives.
- **Multicultural competence:** Students are confident of working in diverse socio-cultural contexts. They are able to effectively engage with multicultural groups and teams. They have sensitivities of cross cultural and ethnic diversity which they can apply to different settings.
- **Lifelong learning:** Students are capable to self-directed/paced learning for the continued learning and holistic development for meeting their professional and personal needs in varying environment and changing contexts.

Program Outcomes (POs)

- The program has been framed in such a manner that students receive real feel of quality education by touching all aspects of human lifecycle.
- Designed to enhance the capacity of students to understand universal and domain-specific values in Home Science.
- Develop the ability to address the complexities and interface among of self, social and national priorities.
- Inculcate both generic and subject-specific skills to succeed in the employment market and standards of life.
- Promote research and innovation and design (product) development favouring all the disciplines in Home Science.
- This programme develops scientific and practical approach among the students which helps in their day-to-day life.
- Develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development.

Syllabus for Undergraduate Certificate Programme

Semester-I

Major Theory Paper - I

Home Science

Fundamentals of Food and Nutrition

HSC-MJ-1(T)

Credit -03 (Lecture-45)

Full Marks - 75

SIE-15

ESE-60

Pass Marks-30

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Question No. 1 will be very short answer type** in Group A consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of 5 marks each, out of which any one to answer. **Class attendance score of 5 marks.**

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type five questions of fifteen marks each, out of which any three are to answer.

Objectives:

1. To understand the basic concept of Food and Nutrition.
2. Develop the understanding of the role of various nutrients & their requirements, deficiency, excess and metabolism of nutrients.
3. To learn about nutritional contributions of different food stuffs.
4. To learn about different methods of improving nutritional quality of food.

Theory :

Unit-I Meaning and Definition of Nutrition- Optimum nutrition, Good nutrition and Balance diet.

Meaning and Definition of Nutrients – Classification of nutrients : Macronutrients and Micro nutrients.

Functions of food and its significance – Physiological functions, social work and psychological functions.

Unit-II Macronutrients :

Carbohydrate : Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess.

Protein : Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess.

Fat: Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess.

Unit-III Micronutrients :

Minerals: Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess of calcium, iron, iodine, sodium, potassium, phosphorous and zinc.

Vitamins : Fat soluble vitamins (A, D, E, K) : Introduction, functions, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency.

Water soluble vitamins (Thiamine, Riboflavin, Niacin, Pyridoxine, Folic Acid & Vitamin C) : Introduction, functions, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency.

Unit-IV Water : Introduction, structure, properties and function, water balance in body, water activity, quality of drinking water.

Recommended Books:

1. Food & Nutrition
2. Food Science
3. Nutritional Science
4. Aahar & Poshan
5. Aahar evam Poshan Vigyan
6. Aahar & Poshan

M Swaminathan
Mudambi, S.R.
B. Sri Lakshmi
Verma & Pandey
Dr. Aasha Kumari
Dr. Reena Khanuja

Syllabus for Under Graduate Certificate Programme of Home Science

Semester-I

Major Paper Practical -I

HSC-MJ-1(P)

Full Marks:25

Credit: 01(Lecture 30)

Pass Marks: 10

Hours: 4

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 4Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

| | |
|---------------------------|------------|
| Experiment | = 15 marks |
| Practical record notebook | = 05 marks |
| Viva-voce | = 05 marks |

PRACTICALS

UNIT-I – Prepare a chart on the classification of food on the basis of nutrients:

- Protein
- Carbohydrate
- Fat
- Minerals
- Vitamins

UNIT- II : Food preparation, understanding the principles involved, nutritional quality and protein size (5-7). Commonly consumed recipes in each food group :

- Cereals : Rice, Pulao, Chapati, Paratha, Poori, Pastas, Poha
- Pulses : Whole, dehusked dal, Sambhar, Chole, Rajmah, Dhokla
- Vegetable : Vegetable soup, dry preparation, vegetable curries.
- Milk and Milk products : Kheer, Custard, Gulab-Jamun.
- Meat, Fish and Polutry preparations.
- Egg preparations : Boild, Poached, fried.

Syllabus for Undergraduate Certificate Programme

Semester-II

Major Theory Paper - II

Home Science

Introduction to Human Development

HSC-MJ-2(T)

Credit -03 (Lecture-45)

Full Marks - 75

SIE-15

ESE-60

Pass Marks-30

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Question No. 1 will be very short answer type** in Group A consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of 5 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type five questions of fifteen marks each, out of which any three are to answer.

Objectives:

1. To learn about basic concepts of human development and their stage & principles.
2. To understand pre-natal and post-natal development of children.
3. To sensitize the students towards intervention in the field of human development.
4. Develop an understanding about the need and importance of studying human growth and development across life span.

THEORY

Unit – I Human development:

- Historical backgrounds of human development.
- Meaning and definition of human development
- Scope or subject matter of human development
- Characteristics and importance of human development.

Unit- II Growth and development :

- Meaning and definition of growth and development
- Different aspects of growth
- Principles of development
- Factors affecting growth and development.
- Difference between growth and development.

Unit- II Prenatal development :

- Conception & Characteristics of prenatal development.
- Stages of prenatal development: Period of ovum, period of embryo, period of foetus.
- Emotional and motor development in prenatal stage.
- Factors affecting prenatal development.

Unit-IV Various aspects of human development :

- **Infancy and childhood**

Physical development : Development of external and internal organs, factors affecting the physical development.

Motor Development : Meaning and kinds of motor development, importance of motor development in life, development of different motor abilities and factor affecting motor development.

Social Development : Meaning and the process of social development, factors affecting social development.

Emotional Development : Meaning and definition of emotion, characteristics of emotional behaviour, factors affecting emotional development and types of emotions.

Language Development : Meaning, importance of language development, stages in speech development, disorder of speech, factors affecting language development.

Cognitive Development : Meaning, intelligence, piagets principles of cognitive development, factors influencing the intelligence.

Recommended Books:

- | | |
|-----------------------------------|---------------------------|
| 1. Bal Vikas & Parivarik Sambandh | : Dr. Mathureshwar Parik. |
| 2. Mantrikala & Shishu Klayan | : Dr. G.P. Shairi |
| 3. Manav Vikash | : Barma & Pandey |
| 4. Parivarik Sambandh | : Barma & Pandey |
| 5. Child Development | : Hurlock, E.B. |
| 6. Bal Vikas | : Nita Agarwal |

Syllabus for Under Graduate Certificate Programme of Home Science

Semester-II

Major Paper Practical -II

HSC-MJ-2(P)

Full Marks:25

Credit: 01(Lecture 30)

Pass Marks: 10

Hours: 4

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 4Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

| | |
|---------------------------|------------|
| Experiment | = 15 marks |
| Practical record notebook | = 05 marks |
| Viva-voce | = 05 marks |

PRACTICALS

UNIT- III : Preparation of an Album of :

- Height and weight chart of growing children.
- Visit to an Aanganwadi.
- Pictorial chart of motor development for the child of zero to one year.

UNIT- II : Preparation an album to show the :

- Characteristics features and patterns of children's clothes.
- Characteristics features and patterns of children's books.

UNIT- III : Prepare a chart on the different stages of prenatal development.

Syllabus for Under Graduate Certificate Programme of Home-Science

Semester-I

Associated Core Course - I

Introduction to Clothing and Textiles

HSC-AC-1(T)

Credit -03 (Lecture-45)

Full Marks 75

SIE-15

ESE-60

Pass Marks-30

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Question No. 1 will be very short answer type** in Group A consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of 5 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type five questions of fifteen marks each, out of which any three are to answer.

Learning Objectives:

1. To get acquainted with textile technical terms, the properties, identification, production and uses of various textile fibers, fabrics.
2. Develop the skills for identification of fibers, yarn and fabrics.
3. Understand different types of yarns, weaves, selection of textile.
4. Learn the methods of dyeing, printing and finishing of fabrics.

THEORY

UNIT-I- Introduction to textile fibres :

- Morphology of textile fibres
- Physical and Chemical properties of fibres
- Classification of textile fibres

UNIT-II- Production, manufacturing process, properties and usages of fibres:

- Natural fibre : Cotton, Flax, Silk and Wool
- Man made fibres : Rayon, Nylon, Polyester and Acrylic.

UNIT-III- Production and properties of yarns :

- Yarns construction
- Types of yarns : Staple and Filament
- Simple yarns, complex yarns
- Yarns properties
- Difference between threads and yarns.

UNIT-IV- Techniques of fabric construction

Weaving :

- Looms and its parts
- Classification of Basic Weaves – Plain, Twill, Satin.
- Novelty Weaves – Pile, Leno-Gauze, Honeycomb.
- Uses of fabrics with different weaves.

Knitting :

- Classification of knitting
- Construction and properties of warp and weft knitting
- Non-Wavers.

UNIT-V- Colouring and finishing of textiles :

Dyes :

- Fundamentals of dyeing
- Classification of dyes -
Direct, Act, Basic and Reactive dyes

Printing :

Styles of printing modern methods of printing

Finishing :

- Introduction of finishing
- Objective of finishing
- Classification and uses of finishing

Recommended Books:

1. Vastra Vigyan ke Sidhanth :Dr. Reena Khanuja
2. Vastra Vigyan : Verma & Pandey
3. Vastra Vigyan evam Paridhan : Dr. Brinda Singh

Syllabus for Under Graduate Certificate Programme of Home-Science

Semester-I

Associated Core Course – I (Practical)

HSC-AC-1(P)

Full Marks:25

Credit: 01(Lecture 30)

Pass Marks: 10

Hours: 4

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 4Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

| | |
|---------------------------|------------|
| Experiment | = 15 marks |
| Practical record notebook | = 05 marks |
| Viva-voce | = 05 marks |

PRACTICALS

UNIT-I – Fibre identification test : Identification of natural and manmade fibers by following four methods.

- Visual test
- Burning test
- Microscopic test
- Chemical test

UNIT-II – Yarn identification : Single, Cord, Textured, Elastic, Monofilament and multifilament.

UNIT-III – Dyeing :

- Dyeing of cotton yarn and fabric with direct dyes.
- Dyeing of silk, wool and nylon yarn and fabrics with basic and acid dyes.
- Dyeing of polyester yarn and fabric with disperse dyes

UNIT-IV – Printing of fabrics : Batik and Block printing.

Syllabus for Four Year Under Graduate Programme of Home-Science

Multi Disciplinary Courses-I (MDC)

Introduction of Home Science

HSC-MDC-I(T)
Credit-03 (Lecture-45)
No Internal Examination

Full Marks 75
Pass Marks-30
Hours:3

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question No. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To make students enable to understand the domains if Home Science as a subject.
2. To make students aware of basics of Nutrition for a healthy life.
3. To make an understanding of life and Human Development.
4. To Develop understanding of resources and their utilisation.
5. To get acquainted with textile and their uses.
6. To understand Home Science extension education system for better community outreach programme.

THEORY

UNIT-I- Food and Nutrition :

Basic understanding of foods, nutrition. Health and its relationship.

Function of food, food groups as sources of various nutrients.

Macro and Micro nutrients, water

Principles of Meal Planning

A brief knowledge of nutrition during infancy, childhood, adolescence, adulthood, old age, pregnancy and Lactation.

UNIT-II- Human Development :

Definition, Introduction and importance of Human development.

Pre-natal development, stage and factors affecting pre-natal development.

Various developments during Infancy, childhood. Adolescence, adulthood, old age. (Physical, mental, social, emotional)

UNIT-III- Family resource management :

Concept, Definition and Scope of Home management.

Family as resource, meaning, classification and characteristics of resource, factor affecting, utilisation of resources.

Availability and management of resources of family – Money, time and energy.

UNIT-IV- Textiles and Clothing :

Textile fibers – its importance, properties and classification.

Uses of natural and manmade fiber.

Basic concept of yarn and fabric manufacturing process

Factors affecting selection of clothes.

Care and storage of clothes.

UNIT-V- Extension Education :

Definition, concept, nature, philosophy and principles of Home Science extension education.

Methods and Types of Communication, Elements of communication.

Audio visual aids – concept, classification, characteristics.

Extension teaching methods-according to use and nature.

Recommended Books:

1. Sri Lakshmi Food Science : New Age International Ltd.
2. Chadha R and Mathur P Nutrition : A life cycle approach Orient Blackswan, New Delhi.
3. Singh, A, Foundation of Human Development : A Life Span approach, New Delhi
4. Parivarik Shanshashan : Dr. Reena Khanuja
5. Sekhri S Textbook of fabric science
6. Prasar Shiksha : Dr. Geeta Pushp Shaw
7. Paralikar, Kalpana, R The Arts of Teaching Home Science : Evira Publication, Baroda.

FORMAT OF QUESTION PAPER FOR SEMESTER INTERNAL EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 10 Marks:

| F.M.=10 | Subject/Code Time=1Hr. | Exam Year |
|--|---------------------------|-----------|
| General Instruction: | | |
| <ul style="list-style-type: none">i. Group A carries very short answer type compulsory question.ii. Answer 1 out of 2 subjective/descriptive questions given in Group B.iii. Answer in your own words as far as practicable.iv. Answer all sub parts of a question at one place.v. Numbers in right indicate full marks of the question. | | |
| Group A | | |
| 1. | | [5x1=5] |
| | i. | |
| | ii. | |
| | iii. | |
| | iv. | |
| | v. | |
| Group B | | |
| 2. | | [5] |
| 3. | | [5] |
| Note: There may be subdivisions in each question asked in Theory Examination. | | |

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FORMAT OF QUESTION PAPER FOR SEMESTER INTERNAL EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 20 Marks:

| F.M.=20 | Subject/Code Time=1Hr. | Exam Year |
|--|---|-----------|
| General Instruction: | | |
| <ul style="list-style-type: none">i. Group A carries very short answer type compulsory question.ii. Answer 1 out of 2 subjective/descriptive questions given in Group B.iii. Answer in your own words as far as practicable.iv. Answer all sub parts of a question at one place.v. Numbers in right indicate full marks of the question. | | |
| <p style="text-align: center;"><u>Group A</u></p> | | |
| 1. | <ul style="list-style-type: none">i. .... ii. .... iii. .... iv. .... v. | [5x1=5] |
| 2. | ..... | [5] |
| <p style="text-align: center;"><u>Group B</u></p> | | |
| 3 | ..... | [10] |
| 4 | ..... | [10] |
| Note: There may be subdivisions in each question asked in Theory Examination. | | |

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FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 50 Marks:

| F.M.=50 | Subject/Code Time=3Hrs. | Exam Year |
|--|---|-----------|
| General Instruction: | | |
| <ul style="list-style-type: none">i. Group A carries very short answer type compulsory question.ii. Answer 3 out of 5 subjective/descriptive questions given in Group B.iii. Answer in your own words as far as practicable.iv. Answer all sub parts of a question at one place.v. Numbers in right indicate full marks of the question. | | |
| <u>Group A</u> | | |
| 1. | <ul style="list-style-type: none">i. .... ii. .... iii. .... iv. .... v. | [5x1=5] |
| <u>Group B</u> | | |
| 2. | | [15] |
| 3. | | [15] |
| 4. | | [15] |
| 5. | | [15] |
| 6. | | [15] |

Note: There may be subdivisions in each question asked in Theory Examination.

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 60 Marks:

| F.M.=60 | Subject/Code Time=3Hrs. | Exam Year |
|--|--|-----------|
| General Instruction: | | |
| i. | Group A carries very short answer type compulsory question. | |
| ii. | Answer 3 out of 5 subjective/descriptive questions given in Group B. | |
| iii. | Answer in your own words as far as practicable. | |
| iv. | Answer all sub parts of a question at one place. | |
| v. | Numbers in right indicate full marks of the question. | |
| | <u>Group A</u> | |
| 1. | | [5x1=5] |
| i. | ..... |  |
| ii. | ..... |  |
| iii. | ..... |  |
| iv. | ..... |  |
| v. | ..... |  |
| 2. | ..... | [5] |
| 3. | ..... | [5] |
| | <u>Group B</u> | |
| 4. | ..... | [15] |
| 5. | ..... | [15] |
| 6. | ..... | [15] |
| 7. | ..... | [15] |
| 8. | ..... | [15] |
| Note: There may be subdivisions in each question asked in Theory Examination. | | |

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 75 Marks:

| F.M.=75 | Subject/Code Time=3Hrs. | Exam Year |
|--|---|-----------|
| General Instruction: | | |
| i. Group A carries very short answer type compulsory question. ii. Answer 4 out of 6 subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable. iv. Answer all sub parts of a question at one place. v. Numbers in right indicate full marks of the question. | | |
| 1. | i. ii. iii. iv. v. | [5x1=5] |
| 2. | | [5] |
| 3. | | [5] |
| <u>Group B</u> | | |
| 4. | | [15] |
| 5. | | [15] |
| 6. | | [15] |
| 7. | | [15] |
| 8. | | [15] |
| 9. | | [15] |
| Note: There may be subdivisions in each question asked in Theory Examination. | | |

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 100 Marks:

| F.M.=100 | Subject/Code Time=3Hrs. | Exam Year |
|--|---|--|
| General Instruction: | | |
| i. Group A carries very short answer type compulsory question. ii. Answer 4 out of 6 subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable. iv. Answer all sub parts of a question at one place. v. Numbers in right indicate full marks of the question. | | |
| <u>Group A</u> | | |
| 1. | | [10x1=10] |
| | i. ii. iii. iv. v. | vi. vii. viii. ix. x. |
| 2. | | [5] |
| 3. | | [5] |
| <u>Group B</u> | | |
| 4. | | [20] |
| 5. | | [20] |
| 6. | | [20] |
| 7. | | [20] |
| 8. | | [20] |
| 9. | | [20] |
| Note: There may be subdivisions in each question asked in Theory Examination. | | |